

SPECIFICATIONS

HL970

| ENGINE | |
|-------------------|---|
| Maker / Model | SCANIA / DC09 085A |
| Type | Watercooled, 4-cycle, turbocharged charge aircooled, direct injection, electronic controlled diesel engine. |
| Gross power | 232 kW (311 HP) / 2,100 rpm |
| Net power | 230 kW (308 HP) / 2,100 rpm |
| Maximum torque | 174 kg.m (1259 lb.ft) / 1,200 rpm |
| No. of cylinders | 5 |
| Bore x Stroke | 130 mm (5.12") x 140 mm (5.51") |
| Displacement | 9.3 l (568 cu in) |
| Compression ratio | 17.0 : 1 |
| Air cleaner | Dry, two stage dual elements |
| Alternator | 24 V, 100 A |
| Battery | 2 x 12 V, 900 CCA |
| Starting motor | 24 V, 6.0 kW |

| TRANSMISSION | |
|-----------------------|---------------------------------------|
| Torque converter type | 3-elements, single-stage single-phase |
| Tire | 26.5 R25, L3 |

* Full automatic power shift, countershaft type with soft-shift in range and direction. Properly matched torque converter to engine and transmission for excellent working ability.

| Travel speed, km/h (mph) | | 4 speed T/M | 5 speed T/M with lock up clutch |
|--------------------------|-----|-------------|---------------------------------|
| Forward | 1st | 7.3 (4.5) | 7.2 (4.5) |
| | 2nd | 12.2 (7.6) | 12.4 (7.7) |
| | 3rd | 27.2 (16.9) | 19.7 (12.2) |
| | 4th | 40.0 (24.9) | 28.1 (17.5) |
| | 5th | | 40.0 (24.9) |
| Reverse | 1st | 7.3 (4.5) | 7.2 (4.5) |
| | 2nd | 12.2 (7.6) | 12.4 (7.7) |
| | 3rd | 27.2 (16.9) | 28.1 (17.5) |

| AXLES | |
|-----------------------|---|
| Drive system | Four-wheel drive system |
| Mount | Rigid front axle and oscillating rear axle |
| Rear axle oscillation | Oscillation $\pm 11^\circ$ of center pin-loaded |
| Hub reduction | Planetary reduction at wheel end |
| Differential | Conventional |
| Reduction ratio | 24.666 |

| OVERVIEW | | | |
|-----------------------|-----------|-----------------------------------|-----------------|
| Description | UNIT | HL970 | HL970 XT |
| Operating weight | kg (lb) | 23,500 (51,809) | 24,300 (53,572) |
| Bucket capacity | Heaped | m ³ (yd ³) | 4.2 (5.5) |
| | Struck | m ³ (yd ³) | 3.6 (4.7) |
| Breakout force-bucket | kg (lb) | 21,775 (48,006) | 21,715 (47,873) |
| Tipping load | Straight | kg (lb) | 18,000 (39,683) |
| | Full turn | kg (lb) | 15,580 (34,348) |

| TIRES | |
|-----------------|---|
| Type | Tubeless, loader design tires |
| Standard | 26.5 R25, ★, L3 |
| Options include | 26.5-25, 20PR, L3 26.5-25, 20PR, L5 26.5, R25 XHA2 23.5-25, 20PR, L3 26.5-25, 28PR, L3 26.5-25, 32PR, L3 |

| HYDRAULIC SYSTEM | |
|------------------|--|
| Type | Load sensing hydraulic system |
| Pump | Variable displacement piston pump, 323 lpm |
| Control valve | 2 Spool (Bucket, Boom) 3 Spool (Bucket, Boom, Aux) |
| System pressure | 280 kgf/cm ² |
| Lift Circuit | The valve has four functions; Raise / Hold / Lower / Float Can adjust automatic kickout from horizontal to full lift. |
| Tilt Circuit | The valve has three functions; Tilt back / Hold / Dump Can adjust automatic bucket positioner to desired load angle. |
| Cylinder | Type : Double acting No. of cylinders-bore x stroke; Lift 2-160 mm (6.3") x 780 mm (30.7") Tilt 1-180 mm (7.1") x 565 mm (22.2") Tilt 1-180 mm (7.1") x 570 mm (22.4") |
| Cycle Time | Raise: 5.7 sec Dump: 1.4 sec Lower: 3.1 sec Total: 10.2 sec |

| BRAKES | |
|-----------------|--|
| Service Brakes | Hydraulically actuated, wet disc brakes actuate all 4 wheels independent axle-by-axle system. Self adjusting & wheel speed brake. |
| Parking Brake | Spring applied, hydraulic released brake |
| Emergency Brake | When brake oil pressure drops, indicator light alerts operator and parking brake automatically applies. |

| STEERING SYSTEM | |
|----------------------|--|
| Type | Load sensing hydrostatic articulated steering |
| Pump | Variable displacement pump, 208 lpm |
| Relief Valve Setting | 210 kgf/cm ² |
| Cylinder | Double acting 2-95 mm (3.7") x 480 mm (18.9") |
| Steering Angle | 40° to both right and left angle, respectively |

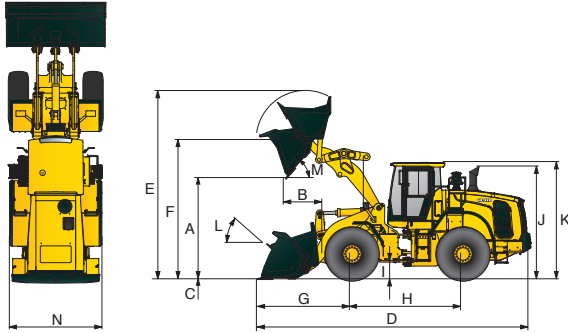
Features:
Center-point frame articulation. Tilt and telescopic steering column.

| SERVICE REFILL CAPACITIES | |
|-----------------------------------|---------------------|
| Fuel tank | 300 l (79.3 Us gal) |
| DEF tank | 60 l (15.9 Us gal) |
| Cooling system | 42 l (11.1 Us gal) |
| Crankcase | 36 l (9.5 Us gal) |
| Transmission | 43 l (11.4 Us gal) |
| Front axle | 51 l (13.5 Us gal) |
| Rear axle | 40 l (10.6 Us gal) |
| Hydraulic tank | 152 l (40.2 Us gal) |
| Hydraulic system (including tank) | 276 l (72.9 Us gal) |

HL970

DIMENSIONS

All dimensions are approximate.



| Description | UNIT | HL970 | HL970 XT |
|---|--------------------------------------|------------------|------------------|
| Bucket Type | General purpose bolt-on cutting edge | | |
| A. Dumping clearance at max. height and 45° dump angle. | mm (ft-in) | 3,080 (10' 1.3") | 3,570 (11' 8.6") |
| B. Reach | Full lift | mm (ft-in) | 1,270 (4' 2.0") |
| | 7ft height | mm (ft-in) | 1,905 (6' 3.0") |
| C. Digging depth | mm (in) | 100 (3.9") | 115 (4.5") |
| D. Overall length | on ground | mm (ft-in) | 8,740 (28' 8.1") |
| | at carry | mm (ft-in) | 8,640 (28' 4.2") |

| Description | UNIT | HL970 | HL970 XT |
|----------------------------------|----------------|-------------------|-------------------|
| E. Overall height (fully raised) | mm (ft-in) | 5,970 (19' 7.0") | 6,460 (21' 2.3") |
| F. Bucket pivot max. height | mm (ft-in) | 4,330 (14' 2.5") | 4,815 (15' 9.6") |
| G. Front overhang | mm (ft-in) | 3,025 (9' 11.1") | 3,455 (11' 4.0") |
| H. Wheelbase | mm (ft-in) | 3,500 (11' 5.8") | 3,500 (11' 5.8") |
| I. Ground clearance | mm (ft-in) | 480 (1' 6.9") | 480 (1' 6.9") |
| J. Height over exhaust | mm (ft-in) | 3,515 (11' 6.4") | 3,515 (11' 6.4") |
| K. Height over cab | mm (ft-in) | 3,590 (11' 9.3") | 3,590 (11' 9.3") |
| L. Roll-back angle | on ground | deg | 43 |
| | at carry | deg | 49 |
| M. Dump angle | deg | 50 | 50 |
| Clearance circle | mm (ft-in) | 11,950 (39' 2.5") | 11,950 (39' 2.5") |
| | | | |
| N. Overall width | with bucket | mm (ft-in) | 3,100 (10' 2.1") |
| | without bucket | mm (ft-in) | 2,975 (9' 9.1") |

HL970/ DENSITY OF OPERATING MATERIALS

| Loose Material | Material Density |
|-----------------|----------------------------|
| Earth/Clay | 1.5 ~ 1.7 |
| Sand and Gravel | 1.5 ~ 1.7 |
| Aggregate | 25 ~ 76 mm (1" to 3 in) |
| | 19 mm (0.75 in) and larger |

HL970/ DENSITY OF OPERATING MATERIALS

| Lift arm | Bucket | Type | m³ (yd³) | Material Density [t/m³] | | | | | | | | | | | | | | | | |
|---------------------|-----------------|--------------------------------|-----------|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Standard lift arm | General Purpose | Cutting edge | 5.2 (6.8) | 6.0 m³ (7.8 yd³) | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 | 6.9 | 7.0 | 7.1 | 7.2 | 7.3 | 7.4 | 7.5 | 7.6 |
| | | 1-Bolt on tooth | 5.0 (6.5) | 5.8 m³ (7.6 yd³) | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 | 6.9 | 7.0 | 7.1 | 7.2 | 7.3 | 7.4 |
| | | Cutting edge | 4.2 (5.5) | 4.8 m³ (6.3 yd³) | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 |
| | | 1-Bolt on tooth & segment edge | 4.2 (5.5) | 4.8 m³ (6.3 yd³) | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 |
| | | 2-Bolt on tooth & segment edge | 4.2 (5.5) | 4.8 m³ (6.3 yd³) | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 |
| | | 1-Bolt on tooth | 4.0 (5.2) | 4.6 m³ (6.0 yd³) | 4.7 | 4.8 | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 |
| | | 2-Bolt on tooth | 4.0 (5.2) | 4.6 m³ (6.0 yd³) | 4.7 | 4.8 | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 |
| | | Cutting edge | 3.5 (4.6) | 4.0 m³ (5.2 yd³) | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 4.6 | 4.7 | 4.8 | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 |
| High lift arm (XTD) | General Purpose | Cutting edge | 5.2 (6.8) | 6.0 m³ (7.8 yd³) | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 | 6.9 | 7.0 | 7.1 | 7.2 | 7.3 | 7.4 | 7.5 | 7.6 |
| | | 1-Bolt on tooth | 5.0 (6.5) | 5.8 m³ (7.6 yd³) | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 | 6.9 | 7.0 | 7.1 | 7.2 | 7.3 | 7.4 |
| | | Cutting edge | 4.2 (5.5) | 4.8 m³ (6.3 yd³) | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 |
| | | 1-Bolt on tooth & segment edge | 4.2 (5.5) | 4.8 m³ (6.3 yd³) | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 |
| | | 2-Bolt on tooth & segment edge | 4.2 (5.5) | 4.8 m³ (6.3 yd³) | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 |
| | | 1-Bolt on tooth | 4.0 (5.2) | 4.6 m³ (6.0 yd³) | 4.7 | 4.8 | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 |
| | | 2-Bolt on tooth | 4.0 (5.2) | 4.6 m³ (6.0 yd³) | 4.7 | 4.8 | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 |
| | | Cutting edge | 3.5 (4.6) | 4.0 m³ (5.2 yd³) | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 4.6 | 4.7 | 4.8 | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 |

115% 100% 95%

| CABIN & INTERIOR | STD | OPT |
|---|-----|-----|
| Alternator, 100 A | ● | |
| Alarms, audible and visual | | |
| Air filter clogging | ● | |
| Transmission error | ● | |
| Battery voltage | ● | |
| Brake oil pressure | ● | |
| Engine oil pressure | ● | |
| Parking brake | ● | |
| Fuel level | ● | |
| Hydraulic oil temperature | ● | |
| Coolant temperature | ● | |
| Transmission oil temperature | ● | |
| Service brake oil pressure | ● | |
| Coolant level | ● | |
| Water in fuel | ● | |
| Alarm, back-up | ● | |
| Batteries, PT | | |
| 925 CCA, 12 V, (2) | ● | |
| Gauges | | |
| Engine coolant temperature | ● | |
| Fuel level | ● | |
| Speedometer | ● | |
| Transmission oil temperature | ● | |
| Horn, electric | ● | |
| Indicator lights | | |
| T/C lock up | | ● |
| High beam | ● | |
| Turn signal | ● | |
| FNR joystick steering | | ● |
| Pilot cut off | ● | |
| LCD Display | | |
| Clock and fault code | ● | |
| Operating hour counter | ● | |
| Engine rpm | ● | |
| Transmission gear range | ● | |
| Indicator | ● | |
| Job time and distance | ● | |
| Temperature (coolant, hydraulic oil, t/m oil) | ● | |
| Lighting system | | |
| LED dome light | ● | |
| 2 stop and tail lights | ● | |
| 4 turn signals | ● | |
| Brake lights (counterweight) | ● | |
| 2 head lights on front tower | ● | |
| 2 working lights on front roof | ● | |
| 4 working lights on front roof, 2 working lights on rear roof | | ● |
| 4 working lights (2 xenon) on front roof, 2 working lights on rear roof | | ● |
| 4 working lights (LED) on front roof, 2 working lights (LED) on rear roof | | ● |
| 2 working lights on grill | ● | |
| Switches | | |
| Hazard | ● | |
| Ignition | ● | |
| Parking | ● | |
| Battery master switch | ● | |
| FNR | | ● |
| Diff, lock | | ● |
| Secondary steering test | | ● |
| Pilot cut off | ● | |
| Membrane Switches in monitor | | |
| Main light | ● | |
| Work light | ● | |
| Auto grease | | ● |
| Quick coupler | | ● |
| Ride control | | ● |
| Work load | ● | |
| Beacon lamp | | ● |
| Rear wiper | ● | |
| Mirror heat | | ● |
| Auto position | ● | |
| Fine modulation | | ● |
| Cab (sound suppressed and pressurized) with | | |
| Cigar lighter & ashtray | ● | |
| Coat hook | ● | |

| CABIN & INTERIOR | STD | OPT |
|--|-----|-----|
| Automatic climate control | | |
| Air conditioner & heater | ● | |
| Defroster | ● | |
| Intermittent wiper and washer, front and rear | ● | |
| Seat | | |
| 2" retractable seat belt & adjustable | ● | |
| 2" static seat belt & adjustable mechanical suspension (heated) | | ● |
| 3" static seat belt & adjustable mechanical suspension | | ● |
| 2" retractable seat belt & adjustable air suspension (heated) | | ● |
| Personal storage space | | |
| Console box | ● | |
| Holder, can and cup | ● | |
| Rear view mirrors (1 inside) | ● | |
| Rear view mirrors (2 outside) | ● | |
| Rear view mirrors (2 outside, Heated) | | ● |
| Steering column, tilt and telescopic | ● | |
| Steering wheel with knob | ● | |
| Roller type sunshade (front window) | ● | |
| Roller type sunshade (rear window) | | ● |
| Tinted safety glass | ● | |
| One door cab | ● | |
| Magazine pocket | ● | |
| Pedals | | |
| One accelerator pedal | ● | |
| One brake pedal | ● | |
| Dual-Brake pedal | | ● |
| Radio/USB player | ● | |
| Rubber floor mat | ● | |
| Wrist rest | ● | |
| 24-volt to 12-volt DC converter (20A) | | ● |
| ENGINE | | |
| Antifreeze | ● | |
| Engine, SCANIA, DC09 085A | | |
| Tier 4 Final / Stage 4 | ● | |
| Engine enclosure, lockable | ● | |
| Engine fuel priming pump | ● | |
| Fan guard | ● | |
| Fuel/water separator (return) | ● | |
| Clean emission module | | |
| DOC and SCR | ● | |
| Rain cap, engine air intake | ● | |
| Radiator | ● | |
| Fuel heater | ● | |
| Coolant level sight gauge | ● | |
| Engine oil level dipstick gauge | ● | |
| 3 Stage Air Precleaner | | ● |
| Air cleaner with auto dust eject | ● | |
| POWER TRAIN | | |
| Brakes : Service, enclosed wet-disc | ● | |
| Parking brake | ● | |
| Torque converter | ● | |
| Transmission F4 / R3, computer controlled, electronic soft shift, auto-shift and kick-down features included | ● | |
| Transmission F5 / R3 with lock-up clutch | | ● |
| Transmission oil sight level | ● | |
| Limited slip differential (front, rear) | | ● |
| Transmission oil cooler | ● | |
| Transmission oil cooler with thermostat | | ● |
| Hydraulic lock differential (front) | | ● |
| Axle cooling system | | ● |
| Tires | | |
| 26.5 R25, L3 | ● | |
| 26.5-25, 20PR, L3 | | ● |
| 26.5-25, 20PR, L5 | | ● |
| 26.5 R25, XHA2 | | ● |
| 23.5-25, 20PR, L3 | | ● |
| 26.5-25, 28PR, L3 | | ● |
| 26.5-25, 32PR, L3 | | ● |
| Travel speed limiter (20-40 km/h) | | ● |

| HYDRAULIC SYSTEM | STD | OPT |
|--|-----|-----|
| Boom kickout, automatic | ● | |
| Bucket positioner, automatic | ● | |
| Diagnostic pressure taps | ● | |
| Hydraulic oil cooler | ● | |
| Hydraulic control, 2 spool | ● | |
| Hydraulic control, 3 spool | ● | |
| Joystick Control (EH control) | ● | |
| Lever control-single axle (EH control) | | ● |
| Joystick Steering | ● | |
| Ride control system | ● | |
| Secondary steering system | ● | |
| Extra piping-for auxiliary function | | ● |
| Quick coupler piping | | ● |
| Auto grease system | | ● |
| OTHER | | |
| Articulation locking bar | ● | |
| Counterweight | ● | |
| Optional counter weight | | ● |
| Door and cab locks, one key | ● | |
| Doors, service access (locking) | ● | |
| Drawbar with pin | ● | |
| Ergonomically located and slip resistant, left & right | ● | |
| Handrails | ● | |
| Ladders | ● | |
| Platforms | ● | |
| Steps | ● | |
| Fenders (front / rear) | ● | |
| Hydraulic oil level sight gauge | ● | |
| Lift and tie-down hooks | ● | |
| Loader linkage, sealed | ● | |
| Z-bar design | ● | |
| Vandalism protection caplocks | ● | |
| Tool kit | | ● |
| Tooth, 1 piece, bolt-on type | | ● |
| Tooth, 2 pieces, bolt-on type | | ● |
| Cutting edge, bolt-on type | | ● |
| Pallet forks | | ● |
| Guards | | |
| Crankcase | ● | |
| Transmission | ● | |
| Mud guards | ● | |
| Wheel chock | ● | |
| License plate & lamp | | ● |
| Hi-Mate (Remote Management System) | ● | |
| Rearview camera | ● | |
| SAFETY | | |
| Beacon light, rotating | | ● |
| Fire extinguisher | | ● |
| Operator suit | | ● |

STD = Standard
OPT = Optional

- * Standard and optional equipment may vary. Contact your Hyundai dealer for more information. The machine may vary according to International standards.
- * The photos may include attachments and optional equipment that are not available in your area.
- * Materials and specifications are subject to change without advance notice.
- * All imperial measurements rounded off to the nearest pound or inch.